

**Work Order ID 119583**

Tuesday, July 22, 2014 3:00:50 PM

**\*119583\***

Page 1

Item ID: D4897-041 Accept **\*N900040100\*** Setup Start **\*NS1\***  
Revision ID: Stop **\*NS2\***  
Item Name: Dome Light Wiring  
Start Date: 7/31/2014 Start Qty: 7.00 **\*7\*** Cust Item ID:  
Required Date: 7/31/2014 Req'd Qty: 7.00 **\*7\*** Customer:  
Reference:

Approvals: Process Plan: CL Date: 14/07/22 Tooling: \_\_\_\_\_ Date: \_\_\_\_\_ Run Start **\*NR1\***  
QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_ Stop **\*NR2\***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
D4897	REV A								

100

**\*100\***

Purchasing

Purchasing

PURCHASING

Memo

Issue P/O: 25114Order From Eagle  
Specification as per dwg D4897-041Ship the following to Eagle  
D4872-1  
D4864-1C OF C IS REQUIRED  
D4290-21

0.00

0.00

CL 14/07/23 7

110

**\*110\***

Packaging

Packaging

Receive &amp; Inspect for Damage &amp; Mat'l Certs

Memo

Ensure material release note is attached

0.00

0.00

Fx 8014-8-18

DQA: AW Date: 14/08/27



# WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: ad Date: 14/8/26

Work Order update only ☐

Work Order: <u>119583</u> Part No. <u>D4897-041</u> NCR No. <u>A-4171</u>	<b>DISPOSITION</b> Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input checked="" type="checkbox"/> Suspected Unapproved <input type="checkbox"/>	<b>AGAINST DEPARTMENT/PROCESS</b> <table> <tr> <td>Skid-tube <input type="checkbox"/></td> <td>Crosstube <input type="checkbox"/></td> <td>Water Jet <input type="checkbox"/></td> <td>Engineering <input type="checkbox"/></td> </tr> <tr> <td>Machining <input type="checkbox"/></td> <td>Small Fab <input type="checkbox"/></td> <td>Prod. Eng. Coord. <input type="checkbox"/></td> <td>Quality <input type="checkbox"/></td> </tr> <tr> <td>Thermoforming <input type="checkbox"/></td> <td>Finishing <input type="checkbox"/></td> <td>Rec/Store/Packaging <input type="checkbox"/></td> <td>Other <input type="checkbox"/></td> </tr> <tr> <td>Large Fab <input type="checkbox"/></td> <td>Composite <input type="checkbox"/></td> <td>Supplier <input type="checkbox"/></td> <td></td> </tr> </table>	Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>	Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coord. <input type="checkbox"/>	Quality <input type="checkbox"/>	Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>	Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>	
Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>															
Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coord. <input type="checkbox"/>	Quality <input type="checkbox"/>															
Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>															
Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>																

Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design	<u>14/8/26</u>	<u>100</u>		TYPE, "CHAPTER 95" SHOULD READ "CHAPTER 25"	DAS 12 9-89  <u>14/8/26</u>	Assemble per chapter 25 of 1CA129-2	DAS 12 9-89  <u>14/8/26</u>	DAS 38 9-89  <u>14/08/19</u>	DAS 9 9-89  <u>1408-19</u>
Doc/Data									
Equip/Tooling									
Handling/Pre									
Material									
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									

## FAULT CATEGORY

<b>Landing Gear</b> <input type="checkbox"/> Bending <input type="checkbox"/> Centre Not Concentric <input type="checkbox"/> Cracks <input type="checkbox"/> Crimp/Kink/Ripple/Wave <input type="checkbox"/> Cuffs <input type="checkbox"/> Crushing <input type="checkbox"/> Heat Treat <input type="checkbox"/> Inspection Strip in Tube <input type="checkbox"/> Marks/Chatter <input type="checkbox"/> Turning Sequence <input type="checkbox"/> Wave/Twist in Tube	<b>General</b> <input type="checkbox"/> Bend <input type="checkbox"/> BOM/Route <input type="checkbox"/> Broken/Damage/Defect <input type="checkbox"/> Burrs <input type="checkbox"/> Contamination <input type="checkbox"/> Countersink <input type="checkbox"/> Cut Too Short <input type="checkbox"/> Drawing <input type="checkbox"/> Drill Holes <input type="checkbox"/> Finish <input type="checkbox"/> Fit/Function	<input type="checkbox"/> Folio/Program <input type="checkbox"/> Grain <input type="checkbox"/> Hardware <input type="checkbox"/> Inspection Incomplete/Unqualified <input type="checkbox"/> Instructions Incomplete/Unclear <input type="checkbox"/> Misaligned/off center <input type="checkbox"/> Mislabeled <input type="checkbox"/> Misread <input type="checkbox"/> Off-set <input type="checkbox"/> Out of Calibration <input type="checkbox"/> Out of Sequence	<input type="checkbox"/> Outside Dimensions <input type="checkbox"/> Over/Under tolerance <input type="checkbox"/> Part Incorrect <input type="checkbox"/> Part Lost/Missing <input type="checkbox"/> Part Moved <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Power Loss/Surge	<input type="checkbox"/> Pressure/Forced <input type="checkbox"/> Set-up <input type="checkbox"/> Temperature/Cure <input type="checkbox"/> Weld <input type="checkbox"/> Wrong Stock Pulled <input type="checkbox"/> Other
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**Work Order ID 119583**

Tuesday, July 22, 2014 3:00:50 PM

**\*119583\***

Page 2

Item ID: D4897-041 Accept **\*N900040100\*** Setup Start **\*NS1\***  
Revision ID: Stop **\*NS2\***  
Item Name: Dome Light Wiring  
Start Date: 7/31/2014 Start Qty: 7.00 **\*7\*** Cust Item ID:  
Required Date: 7/31/2014 Req'd Qty: 7.00 **\*7\*** Customer:  
Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_ Run Start **\*NR1\***  
QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_ Stop **\*NR2\***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
120	QC6- Inspect dimensions to drawing	0.00							
<b>*120*</b>						(7)	DAS 9	DAS 38	14/08/19
QC	Memo	0.00					9-89	9-89	
Quality Control									
130	Identify as per dwg & Stock Location: <u>8 UFY</u>	0.00							
<b>*130*</b>									
Packaging	Memo	0.00							
Packaging									
140	QC21- Final Inspection - Work Order Release	0.00							
<b>*140*</b>									
QC	Memo	0.00							
Quality Control									

7x SP 14-8-19

MLJ 14-08-19

14-8-19

DQA: \_\_\_\_\_ Date: \_\_\_\_\_



## WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: \_\_\_\_\_ Date: \_\_\_\_\_

Work Order update only ☐

Work Order: _____  Part No. _____  NCR No. _____	<b>DISPOSITION</b>  Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/> Suspected Unapproved <input type="checkbox"/>	<b>AGAINST DEPARTMENT/PROCESS</b>  <table style="width: 100%;"> <tr> <td>Skid-tube <input type="checkbox"/></td> <td>Crosstube <input type="checkbox"/></td> <td>Water Jet <input type="checkbox"/></td> <td>Engineering <input type="checkbox"/></td> </tr> <tr> <td>Machining <input type="checkbox"/></td> <td>Small Fab <input type="checkbox"/></td> <td>Prod. Eng. Coord. <input type="checkbox"/></td> <td>Quality <input type="checkbox"/></td> </tr> <tr> <td>Thermoforming <input type="checkbox"/></td> <td>Finishing <input type="checkbox"/></td> <td>Rec/Store/Packaging <input type="checkbox"/></td> <td>Other <input type="checkbox"/></td> </tr> <tr> <td>Large Fab <input type="checkbox"/></td> <td>Composite <input type="checkbox"/></td> <td>Supplier <input type="checkbox"/></td> <td></td> </tr> </table>	Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>	Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coord. <input type="checkbox"/>	Quality <input type="checkbox"/>	Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>	Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>	
Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>															
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Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design									
Doc/Data									
Equip/Tooling									
Handling/Pre									
Material									
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									

### FAULT CATEGORY

<b>Landing Gear</b> <input type="checkbox"/> Bending <input type="checkbox"/> Centre Not Concentric <input type="checkbox"/> Cracks <input type="checkbox"/> Crimp/Kink/Ripple/Wave <input type="checkbox"/> Cuffs <input type="checkbox"/> Crushing <input type="checkbox"/> Heat Treat <input type="checkbox"/> Inspection Strip in Tube <input type="checkbox"/> Marks/Chatter <input type="checkbox"/> Turning Sequence <input type="checkbox"/> Wave/Twist in Tube	<b>General</b> <input type="checkbox"/> Bend <input type="checkbox"/> BOM/Route <input type="checkbox"/> Broken/Damage/Defect <input type="checkbox"/> Burrs <input type="checkbox"/> Contamination <input type="checkbox"/> Countersink <input type="checkbox"/> Cut Too Short <input type="checkbox"/> Drawing <input type="checkbox"/> Drill Holes <input type="checkbox"/> Finish <input type="checkbox"/> Fit/Function	<input type="checkbox"/> Folio/Program <input type="checkbox"/> Grain <input type="checkbox"/> Hardware <input type="checkbox"/> Inspection Incomplete/Unqualified <input type="checkbox"/> Instructions Incomplete/Unclear <input type="checkbox"/> Misaligned/off center <input type="checkbox"/> Mislabeled <input type="checkbox"/> Misread <input type="checkbox"/> Off-set <input type="checkbox"/> Out of Calibration <input type="checkbox"/> Out of Sequence	<input type="checkbox"/> Outside Dimensions <input type="checkbox"/> Over/Under tolerance <input type="checkbox"/> Part Incorrect <input type="checkbox"/> Part Lost/Missing <input type="checkbox"/> Part Moved <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Power Loss/Surge  <input type="checkbox"/> Pressure/Forced <input type="checkbox"/> Set-up <input type="checkbox"/> Temperature/Cure <input type="checkbox"/> Weld <input type="checkbox"/> Wrong Stock Pulled  <input type="checkbox"/> Other
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# Picklist Print

Tuesday, July 22, 2014 3:00:49 PM

Page 1

Work Order ID: 119583

**\*119583\***

Parent Item: D4897-041

**\*D4897-041\***

Parent Item Name: Dome Light Wiring

Start Date: 7/31/2014

Required Date: 7/31/2014

Start Qty: 7.00

Required Qty: 7.00

Comments: IPP Rev. A New Issue 13/09/25 DL

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D4290-21		Manufactured	No			100	Each	232.0000	4	28 ✓			
<b>*D4290-21*</b>									<b>**</b>				
Terminal (Red)													
				<u>Location</u>				<u>Loc Qty</u>		<u>Loc Code</u>			
				ST100				232					
				108988				32					
				119194				200					
D4864-1		Manufactured	No			100	Each	13.0000	1	7			
<b>*D4864-1*</b>									<b>**</b>				
RHeostat													
				<u>Location</u>				<u>Loc Qty</u>		<u>Loc Code</u>			
				ST123				13					
				108968				2 ✓					
				114841				11 ✕S					
D4872-1		Manufactured	No			100	Each	29.0000	2	14			
<b>*D4872-1*</b>									<b>**</b>				
Light Fixture													
				<u>Location</u>				<u>Loc Qty</u>		<u>Loc Code</u>			
				ST124				29					
				108989				1					
				111780				1					
				117793				27					
D4897-041P		Purchased	No				Each	0.0000		7			
<b>*D4897-041P*</b>									<b>**</b>				
Dome Light Wiring													

CL14/07/22

✓

CL14/07/22

✓2

5

CL14/07/22

1

13

7x SP14-8-18

DQA: \_\_\_\_\_ Date: \_\_\_\_\_



## WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: \_\_\_\_\_ Date: \_\_\_\_\_

Work Order update only ☐

Work Order: _____  Part No. _____  NCR No. _____	<b>DISPOSITION</b>  Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/> Suspected Unapproved <input type="checkbox"/>	<b>AGAINST DEPARTMENT/PROCESS</b>  <table style="width: 100%;"> <tr> <td>Skid-tube <input type="checkbox"/></td> <td>Crosstube <input type="checkbox"/></td> <td>Water Jet <input type="checkbox"/></td> <td>Engineering <input type="checkbox"/></td> </tr> <tr> <td>Machining <input type="checkbox"/></td> <td>Small Fab <input type="checkbox"/></td> <td>Prod. Eng. Coord. <input type="checkbox"/></td> <td>Quality <input type="checkbox"/></td> </tr> <tr> <td>Thermoforming <input type="checkbox"/></td> <td>Finishing <input type="checkbox"/></td> <td>Rec/Store/Packaging <input type="checkbox"/></td> <td>Other <input type="checkbox"/></td> </tr> <tr> <td>Large Fab <input type="checkbox"/></td> <td>Composite <input type="checkbox"/></td> <td>Supplier <input type="checkbox"/></td> <td></td> </tr> </table>	Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>	Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coord. <input type="checkbox"/>	Quality <input type="checkbox"/>	Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>	Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>	
Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>															
Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coord. <input type="checkbox"/>	Quality <input type="checkbox"/>															
Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>															
Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>																

Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design									
Doc/Data									
Equip/Tooling									
Handling/Pre									
Material									
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									

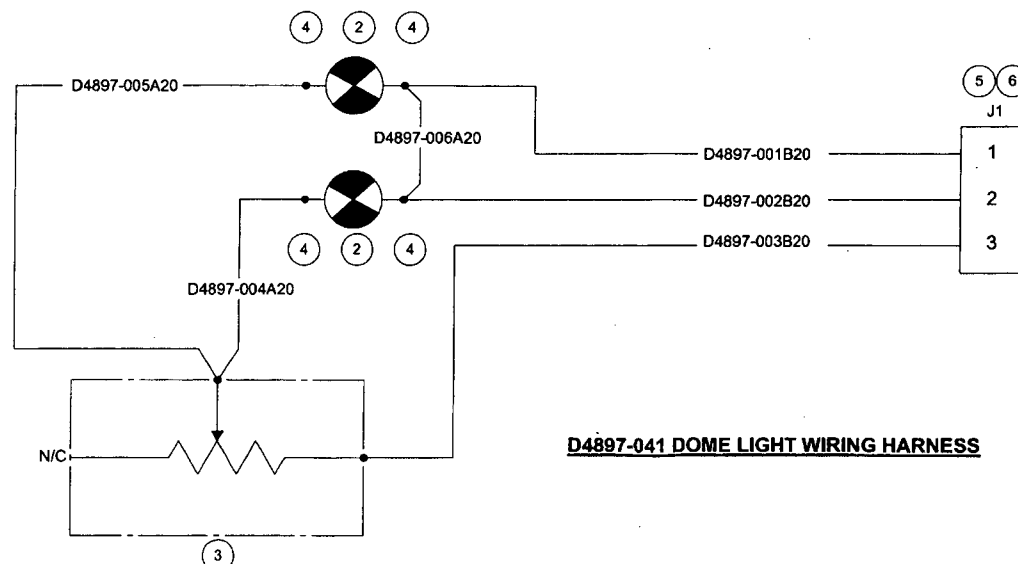
### FAULT CATEGORY

<b>Landing Gear</b> <input type="checkbox"/> Bending <input type="checkbox"/> Centre Not Concentric <input type="checkbox"/> Cracks <input type="checkbox"/> Crimp/Kink/Ripple/Wave <input type="checkbox"/> Cuffs <input type="checkbox"/> Crushing <input type="checkbox"/> Heat Treat <input type="checkbox"/> Inspection Strip in Tube <input type="checkbox"/> Marks/Chatter <input type="checkbox"/> Turning Sequence <input type="checkbox"/> Wave/Twist in Tube	<b>General</b> <input type="checkbox"/> Bend <input type="checkbox"/> BOM/Route <input type="checkbox"/> Broken/Damage/Defect <input type="checkbox"/> Burrs <input type="checkbox"/> Contamination <input type="checkbox"/> Countersink <input type="checkbox"/> Cut Too Short <input type="checkbox"/> Drawing <input type="checkbox"/> Drill Holes <input type="checkbox"/> Finish <input type="checkbox"/> Fit/Function	<input type="checkbox"/> Folio/Program <input type="checkbox"/> Grain <input type="checkbox"/> Hardware <input type="checkbox"/> Inspection Incomplete/Unqualified <input type="checkbox"/> Instructions Incomplete/Unclear <input type="checkbox"/> Misaligned/off center <input type="checkbox"/> Mislabeled <input type="checkbox"/> Misread <input type="checkbox"/> Off-set <input type="checkbox"/> Out of Calibration <input type="checkbox"/> Out of Sequence	<input type="checkbox"/> Outside Dimensions <input type="checkbox"/> Over/Under tolerance <input type="checkbox"/> Part Incorrect <input type="checkbox"/> Part Lost/Missing <input type="checkbox"/> Part Moved <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Power Loss/Surge  <input type="checkbox"/> Pressure/Forced <input type="checkbox"/> Set-up <input type="checkbox"/> Temperature/Cure <input type="checkbox"/> Weld <input type="checkbox"/> Wrong Stock Pulled  <input type="checkbox"/> Other
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ITEM NO.	QTY -041	PART NUMBER	DESCRIPTION	SUPPLIER
1	X	D4897-041	DOMELIGHT WIRING HARNESS	DART
2	2	D4872-1	LIGHT FIXTURE	DART
3	1	D4864-1	RHEOSTAT	DART
4	4	D4290-21	RING TERMINAL	DART
5	1	1-480305-0	CONNECTOR, PLUG	AMP
6	3	60618-1	CONTACT, PIN	AMP

SHOP COPY  
RETURN TO  
ENGINEERING  
UNCONTROLLED COPY  
SUBJECT TO AMENDMENT  
WITHOUT NOTICE  
WORK ORDER  
NO. 119583 MLC

1405-23



WIRE NUMBER	LENGTH (in)
D4897-001B20	7.0
D4897-002B20	7.0
D4897-003B20	5.5
D4897-004A20	4.0
D4897-005A20	4.0
D4897-006A20	9.0

RELEASED  
2013-09-16

D4897-041 DOME LIGHT WIRING HARNESS

TYPE, SHOULD READ "CHAPTER 25"  
REF W/O C116 119583, P/O. 25114

- NOTES:
- 1) ALL NEW UNSHIELDED WIRE USE M22759/41-xx-9 TYPE WIRE UNLESS OTHERWISE SPECIFIED
  - 2) ALL WIRES 20 AWG UNLESS OTHERWISE SPECIFIED
  - 3) IDENTIFY CODE ALL WIRES AND CABLES IN ACCORDANCE WITH AC43.13-1B, SECTION 16, WIRE MARKING
  - 4) KEEP ALL JUMPERS AS SHORT AS POSSIBLE
  - 5) ALL TERMINALS TO BE INSTALLED IN ACCORDANCE WITH EUROCOPTER STANDARD PRACTICES MANUAL 20.80.20
  - 6) ALL CONNECTORS TO BE INSTALLED IN ACCORDANCE WITH TYCO ELECTRONICS INSTRUCTION SHEET 408-7201 DETENT-ENGAGEMENT MATE-N-LOCK CONNECTORS
  - 7) ROUTE ALL WIRES AND CABLES IN ACCORDANCE WITH CHAPTER 25 OF ICA129-2
  - 8) UNITS: INCHES UNLESS OTHERWISE NOTED
  - 9) IDENTIFY CONNECTORS WITH SHRINK SLEEVE LABELS IN ACCORDANCE WITH AC43.13-1B, SECTION 16, WIRE MARKING

A	NEW ISSUE	BY	DATE
REV.	DESCRIPTION	BY	DATE
DESIGN	CB	DART AEROSPACE USA, INC.	REV. A
DRAWN	CB	KENT, WA	SHEET 1 OF 3
CHECKED	CB	DRAWING NO.	D4897
MFG. APPR.	W	TITLE	DOMELIGHT WIRING HARNESS
APPROVED	W	SCALE	N/A
DE APPR.	W	DATE	13.07.24

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Dart Aerospace Ltd.  
1270 Aberdeen Street  
Hawkesbury, ON K6A 1K7  
Tel: 613 632 9577  
Fax: 613 632 1053

## PURCHASE ORDER

Purchase Order ID PO25114

Purchase Order Date 7/23/2014

PO Print Date 7/23/2014

Page Number 1 of 2

**Order From :**

VC-EAG002

EAGLE COPTERS MAINTENANCE LTD.  
823 MCTAVISH ROAD  
CALGARY, AB T2E 7G9  
CA

**Ship To :** DART AEROSPACE LTD

1270 ABERDEEN  
HAWKESBURY, ON K6A 1K7  
CANADA

Contact Name  
Vendor Phone 403 250 7370

Ship To Contact

Ship To Phone

Ship Via: FedEx PI ppd

Ship Acct:

Buyer  
Customer POID  
Customer Tax # 10127-2607  
Terms Net 15  
Currency CAD  
FOB Destination-Collect

Line Nbr	Reference Vendor Part Number	Description/ Mfg ID	Req Date/ Taxable	CD	Req Qty/ Unit of Measure	PO Unit Price	Extended Price
	Line Comments		Promise Date				
	Delivery Comments						

1	D4897-041P	Dome Light Wiring	8/15/2014	No	7.00 Each	\$337.50	\$2,362
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AS PER DWG D4897 REV. A  
B119583

SP14-8-18

Line Total: \$2,362

2	D4897-043P	Dome Light Wiring	8/15/2014	No	5.00 Each	\$360.12	\$1,800
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AS PER DWG D4897 REV. A  
B122757

SP14-8-18

Line Total: \$1,800

Note:

7/23/2014





**DATE:** 14 Aug 14

823 McTavish Rd. NE

**Calgary, AB, Canada**

T2E 7G9

SHIP TO : Dart Aerospace Ltd.

**1270 Aberdeen Street**

**Hawkesbury ON Canada**

K6A 1K7

5/4-8-18

X

I Hereby certify that the aircraft parts described hereon were aquired from a source of supply that is consistant with the conditions under which Transport Canada Approved Distributor approval 6-81 has been granted

**AUTHORIZED INSPECTOR:**



979042

N° DE COMMANDE ORDER NO.		SERV. DEPT.		DATE	
P10: 25114				14/07/23	
VENDU À SOLD TO			EXPÉDIER À SHIP TO		
			Cagle Copters		
ADRESSE ADDRESS			ADRESSE ADDRESS		
			823 Inctawish RD		
			Calgary AB T2E-7C9		
DATE D'EXPÉDITION SHIPPING DATE		VIA	CONDITIONS TERMS	N° DE TAXE TAX REG. NO.	VENDU PAR SOLD BY
			attn:	CUC	

[illegible]

# FORMULAIRE DE VENTE

## SALES ORDER

STAPLES 82B



DART AEROSPACE USA, INC.  
19717 62<sup>nd</sup> Ave. South  
Suite E-101  
Kent, WA 98032

Tel: 1 613 632 5200  
Fax: 1 613 632 5246

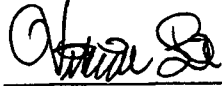
e-mail: [heli@dartaero.com](mailto:heli@dartaero.com)  
<http://www.dartaero.com>

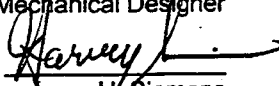
## INSTRUCTIONS FOR CONTINUED AIRWORTHINESS


ICA129-2

# *Dome Light Air Vent*

EUROCOPTER AS350 MODELS

Prepared By:   
V. Seib  
Mechanical Designer

Checked By:   
H. Siemens  
Mechanical Designer

Released By:   
D. Shepherd, P. Eng  
DE #02

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Revision: 0

REVISION RECORD

Revision	Issue Date	Description
N/C	11.10.14	New Issue
0	13.07.02	Update to Dart format, Add parts list

LIST OF EFFECTIVE PAGES

DESCRIPTION	PAGE(S)	REVISION
COVER	1	0
REVISION RECORD	2	0
LIST OF EFFECTIVE PAGES	3	0
TABLE OF CONTENTS	4	0
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## **1.0 INTRODUCTION (01-00-00)**

### **1.1. SCOPE**

This manual provides the requirements set forth in Appendix A of FAR Part 27 for the Instructions for Continued Airworthiness of the Dart D350-833-011/-013/-015/-017/-019 Dome Light Air Vent kits. These Instructions for Continued Airworthiness are to be referred to for inspection and maintenance when the Dart Dome Light Air Vent kits are installed on, removed from, or in service on the AS350 rotorcraft.

### **1.2. ARRANGEMENT**

This manual is arranged in the ATA-100 format. This manual is only applicable to Eurocopter AS350 model aircraft when the Dart D350-833-011/-013/-015/-017/-019 Dome Light Air Vent kits are installed on, in service on or removed from these aircraft.

There are no abbreviations, acronyms, or symbolization which are not common to the aviation industry in this manual.

Units of measurement are expressed in Imperial and metric values and all torque values are standard values for the specified fastener combinations as defined in FAA AC 43.13, unless otherwise specified in this document.

No other Instructions for Continued Airworthiness for any product or appliance is inferred or addressed herein.

### **1.3. DISTRIBUTION**

Any changes in the content or revision level of this document will be made available to any owner/operator at [www.dartaero.com](http://www.dartaero.com).

Additionally, any changes will be sent to the FAA. All changes will be recorded in the Record of Revisions page at the front of this manual.

### **1.4. COMPATIBILITY**

Compatibility of this installation with the aircraft is the **responsibility of the installer**. Ensure that this installation does no conflict with a previous modification.

## 1.5. SYSTEM DESCRIPTION

The Dart D350-833-011/-013/-015/-017/-019 Dome Light Air Vent kits are used to directly replace the Eurocopter AS350 Dome Light Air Vent Assembly by mounting two new air vents and light fixtures to the cabin roof of the Eurocopter AS350 aircraft. These kits come in different configurations for the various AS350 models as follows:

- **D350-833-011 Dome Light Air Vent**

A direct replacement for the older style Eurocopter factory vents 350A72-0315-02 & -03. This is for aircraft that are pre-mod 350A-07-2617. This assembly mounts to holes that are 6.95 in. (177mm) apart lengthwise (longitudinally). See Figure 25-1 for assembly diagrams and Figure 25-5 for wiring diagrams for this model.

- **D350-833-013 Dome Light Air Vent**

A direct replacement to Eurocopter factory vents 350A08-4126-0601 & -0701. This is for aircraft that are post-mod 350A-07-2617. This assembly has a hole to hole spacing of 7.63 in. (194 mm). See Figure 25-2 for assembly diagrams and Figure 25-5 for wiring diagrams for this model.

- **D350-833-015 Dome Light Air Vent**

A direct replacement to Eurocopter factory AFT vents 350A72-0317-04. This is for aircraft that are post-mod 350A-07-2695. This assembly is the same length as the D350-833-013 but has two additional holes spaced evenly lengthwise. See Figure 25-3 for assembly diagrams and Figure 25-5 for wiring diagrams for this model.

- **D350-833-017 Dome Light Air Vent**

A direct replacement to the newer style Eurocopter factory FWD vents 350A72-0317-05. This is for aircraft that are post-mod 350-07-2695. This air vent has 7 mounting holes. See Figure 25-4 for assembly diagrams and Figure 25-6 for wiring diagrams for this model.

- **D350-833-019 NVIS**

An NVIS "Green A" compliant filter kit option for the dome lights. See Figure 25-7.

The components in the D350-833-011/-013/-15/-017/-019 kits are as defined in the table in Section 25.5 of these instructions. For convenience, only the last three digits of the part number are listed on the top row of each table. The quantity of each component which is included in the D350-833-011 Dome Light Air Vent kit, for example, is as defined in the column labeled -011.



#### **4.0 AIRWORTHINESS LIMITATIONS (04-00-00)**

The Airworthiness Limitations section is FAA approved and specifies inspection and other maintenance required under Sections 43.16 and 91.403 of the Federal Aviation Regulations unless an alternative program has been FAA approved.

There are no airworthiness limitations associated with this type design change.

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## **5.0 INSPECTION REQUIREMENTS (05-00-00)**

### **5.1. 12 Month/1000 Hour Inspection**

**Note:** For the convenience of scheduling maintenance, the tolerance for scheduled inspection intervals is  $\pm 10\%$  ( $\pm 1$  month or 100 hours) in each case, the subsequent interval will be adjusted to re-establish the original schedule. When an inspection is done more than 10% early, subsequent inspections will be advanced as a required to not exceed the maximum tolerance. Concurrence and final approval of the inspection interval tolerance by the governing civil aviation authority is the responsibility of the owner/operator.

- 5.1.1. Remove the Dome Light Air Vent kit per Section 25.1
- 5.1.2. Inspect the Dome Light Air Vent for corrosion, damage and proper operation.
- 5.1.3. Inspect the Dome Light Air Vent housing for cracks, tearing, hole elongation, or surface damage to the housing structure.
- 5.1.4. If there are cracks or tears greater than 0.125" (3 mm) in length or the attachment holes are elongated by more than 0.025" (0.64 mm) the housing should be replaced.
- 5.1.5. If there is surface damage that is aesthetically displeasing, the housing should be replaced at the customer's discretion.
- 5.1.6. If the D350-833-019 NVIS Filter Kit has been installed:
  - a) Remove the D4907-1 Filter per Section 25.3
  - b) Inspect components for damage.
  - c) If the filter is nicked, scratched, cracked, distorted, or water damaged in any way, it should be replaced.
  - d) If the D4873-1 O-rings are brittle, they should be replaced.
  - e) Reinstall the D4907-1 Filter per Section 25.4
- 5.1.7. Reinstall the Dome Light Air Vent per Section 25.2

### **5.2. OVERHAUL SCHEDULE**

**NO COMPONENT OVERHAUL REQUIRED FOR THIS KIT.**

**8.0 LEVELING AND WEIGHING (08-00-00)**

The following table shows the net weight increase associated with the D350-833-011/-013/-015/-017/-019 Dome Light Air Vent kits.

Installation	Weight	LONGITUDINAL				LATERAL	
		Arm FWD	Moment FWD	Arm AFT	Moment AFT	Arm	Moment
<b>D350-833-011</b>	0.5 lb	65.2 in	32.6 lb-in	95.4 in	47.7 in-lb	0 in	0 lb-in
<i>Dome Light Air Vent</i>	0.23 kg	1.6 m	0.37 m-kg	2.4 m	3.8 m-kg	0 m	0 m-kg
<b>D350-833-013</b>	0.5 lb	65.2 in	32.6 lb-in	95.4 in	47.7 in-lb	0 in	0 lb-in
<i>Dome Light Air Vent</i>	0.23 kg	1.6 m	0.37 m-kg	2.4 m	3.8 m-kg	0 m	0 m-kg
<b>D350-833-015</b>	0.5 lb	65.2 in	32.6 lb-in	95.4 in	47.7 in-lb	0 in	0 lb-in
<i>Dome Light Air Vent</i>	0.23 kg	1.6 m	0.37 m-kg	2.4 m	3.8 m-kg	0 m	0 m-kg
<b>D350-833-017</b>	0.5 lb	65.2 in	32.6 lb-in	95.4 in	47.7 in-lb	0 in	0 lb-in
<i>Dome Light Air Vent</i>	0.23 kg	1.6 m	0.37 m-kg	2.4 m	3.8 m-kg	0 m	0 m-kg
<b>D350-833-019</b>	0.0 lb	65.2 in	0.0 lb-in	95.4 in	0.0 lb	0 in	0 lb-in
<i>NVIS Filter Kit</i>	0.00 kg	1.6 m	0.00 m-kg	2.4 m	0.0 m-kg	0 m	0 m-kg

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**08-00-00**

**25.0 EQUIPMENT AND FURNISHINGS (25-00-00)****25.1. D350-833-011/-013/-015/-017 Dome Light Air Vent Removal**

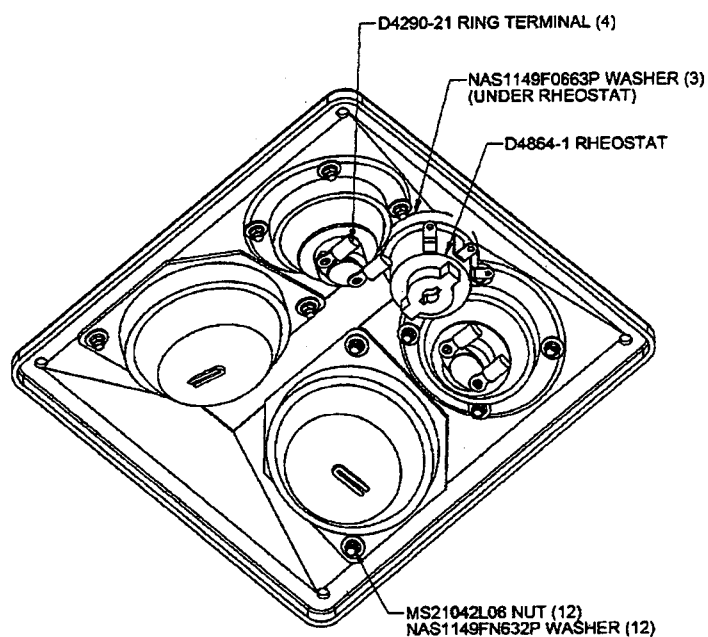
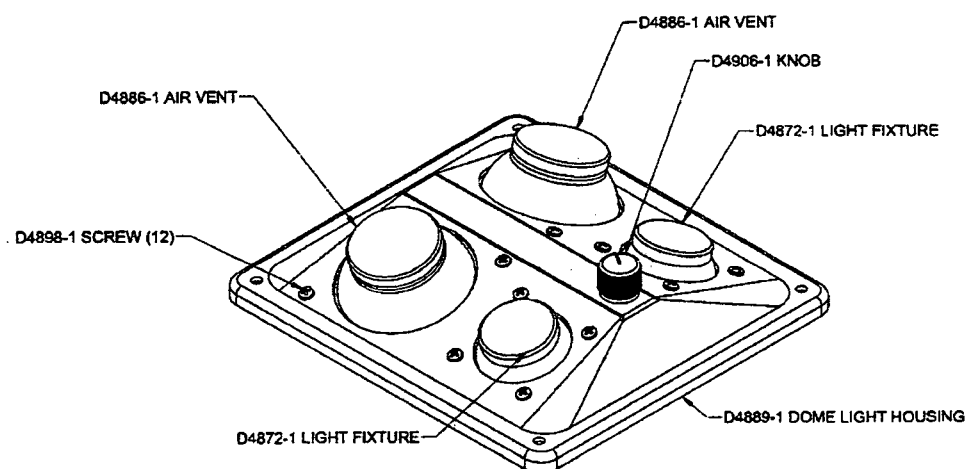
- 25.1.1. Remove the D350-833-011/-013/-015/-017 Dome Light Air Vent kit by removing the mounting screws and disconnecting the wiring harness. Retain mounting screws for reinstallation. Refer to Figures 25-1 to 25-4 for assembly details and Figures 25-5 and 25-6 for wiring diagrams.

**25.2. D350-833-011/-013/-015/-017 Dome Light Air Vent Reinstallation**

- 25.2.1. Connect wiring harness per Figure 25-5 or 25-6 as applicable
- 25.2.2. Mound D350-833-011/-013/-015/-017 Dome Light Air Vent Assembly to the roof using existing fasteners and torque per Table 1. Refer to Figure 25-1 thru 25-4 for assembly details.

**Table 1 – Standard Torque**

Fastener	Torque (in-lb)	Torque (m-kg)
#6	7-9	0.08-0.10

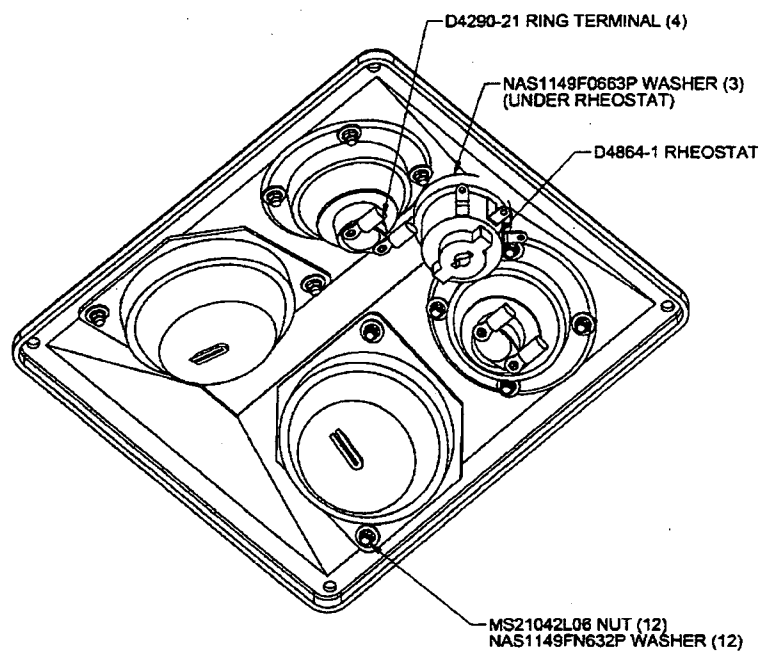
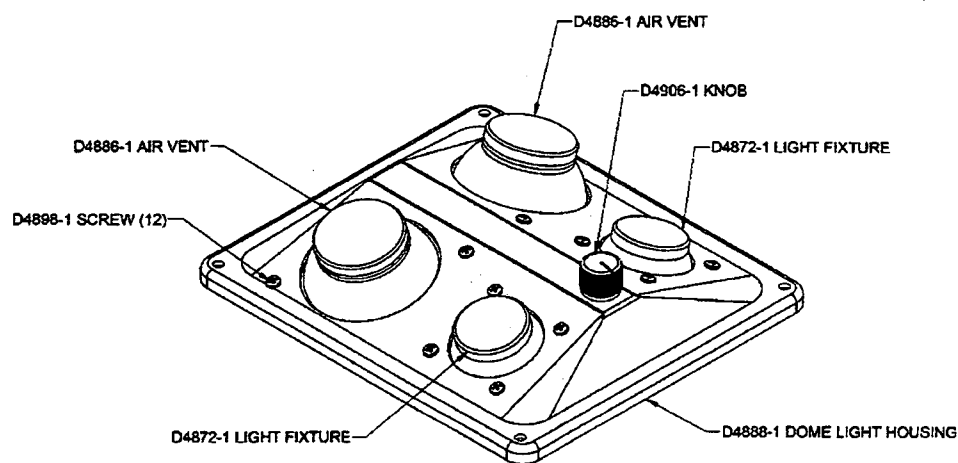


**Figure 25-1 – D350-833-011 Dome Light Air Vent Kit**  
(Wiring harness not shown for clarity)

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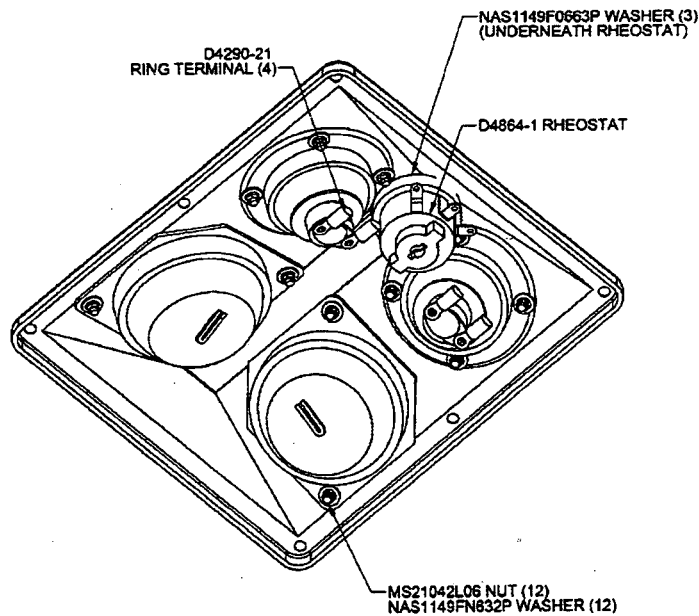
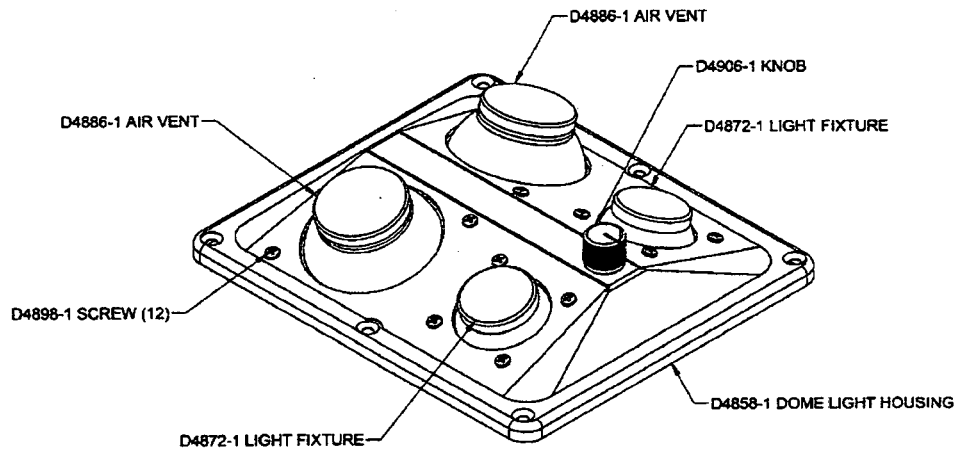


**Figure 25-2 – D350-833-013 Dome Light Air Vent Kit**  
(Wiring harness not shown for clarity)

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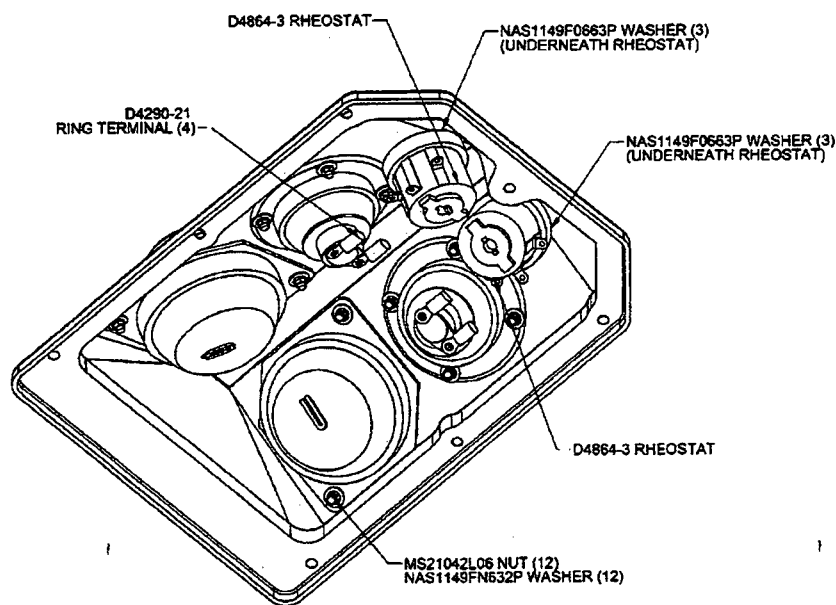
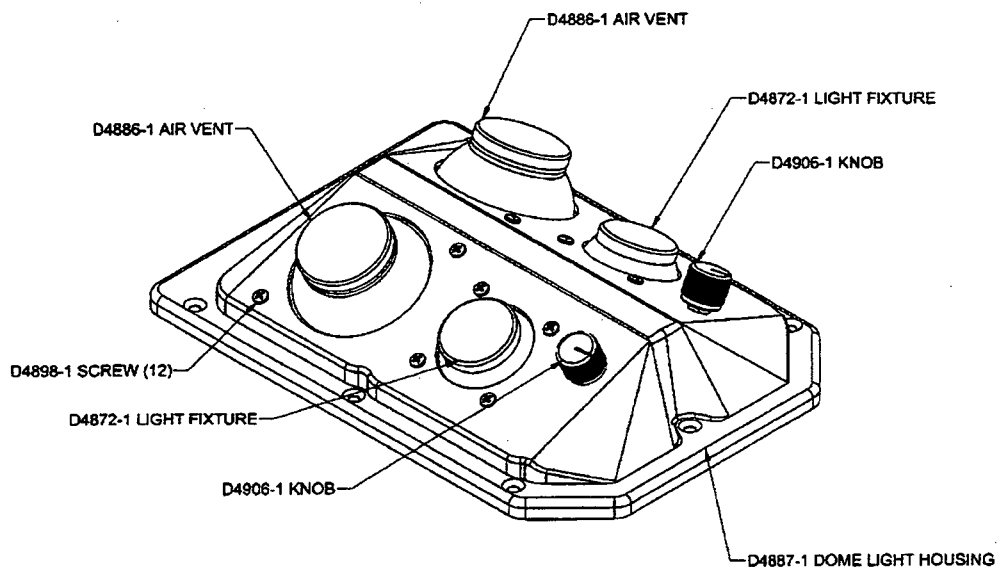


**Figure 25-3 – D350-833-015 Dome Light Air Vent Kit**  
**(Wiring harness not shown for clarity)**

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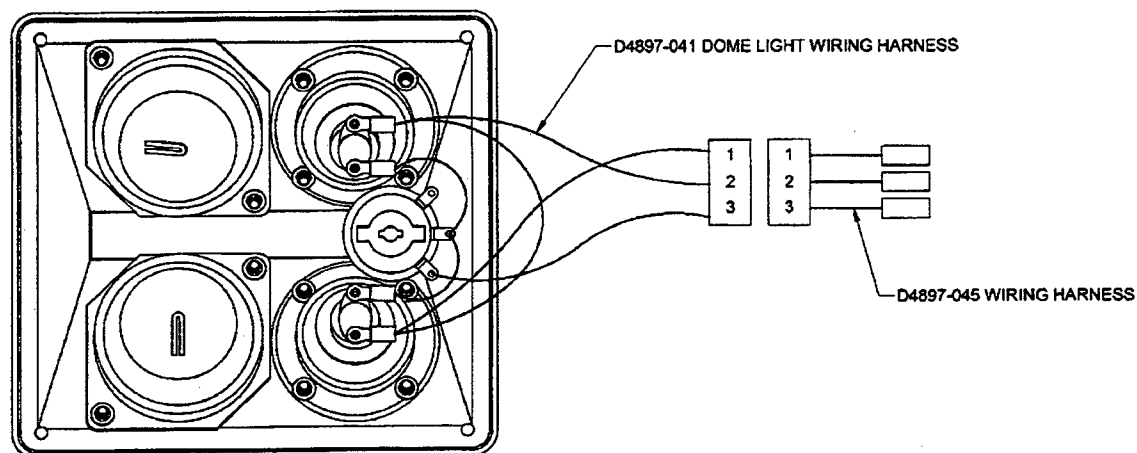
**Figure 25-4 – D350-833-017 Dome Light Air Vent Kit**  
(Wiring harness not shown for clarity)

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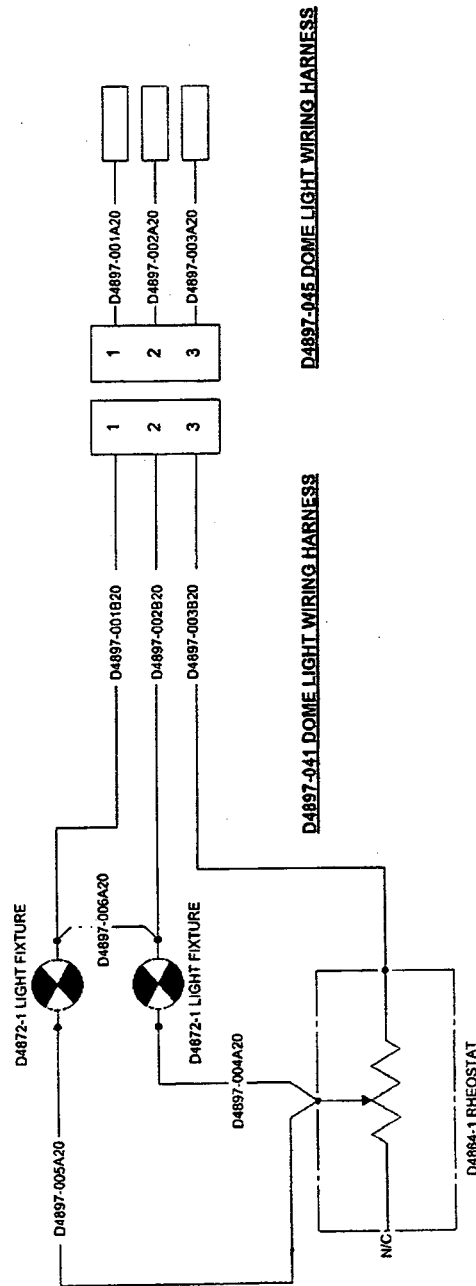


**Figure 25-5 – Dome Light Wiring Diagram for D350-833-011/-013/-015 Installations  
(-011 shown, -013/-015 similar) (Sheet 1 of 2)**

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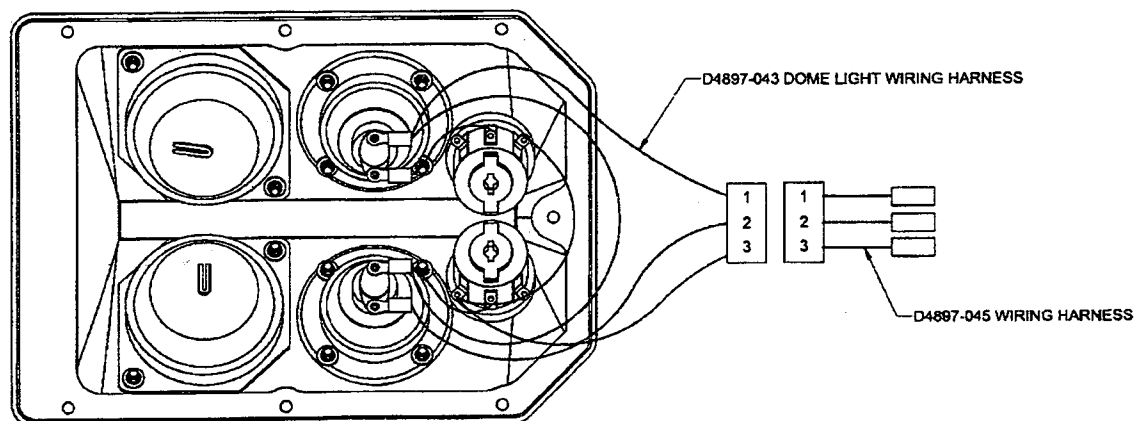


**Figure 25-5 – Dome Light Wiring Diagram for D350-833-011/-013/-015 Installations  
(-011 shown, -013/-015 similar) (Sheet 2 of 2)**

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**Figure 25-6 – Dome Light Wiring Diagram for D350-833-017 Installations  
(Sheet 1 of 2)**

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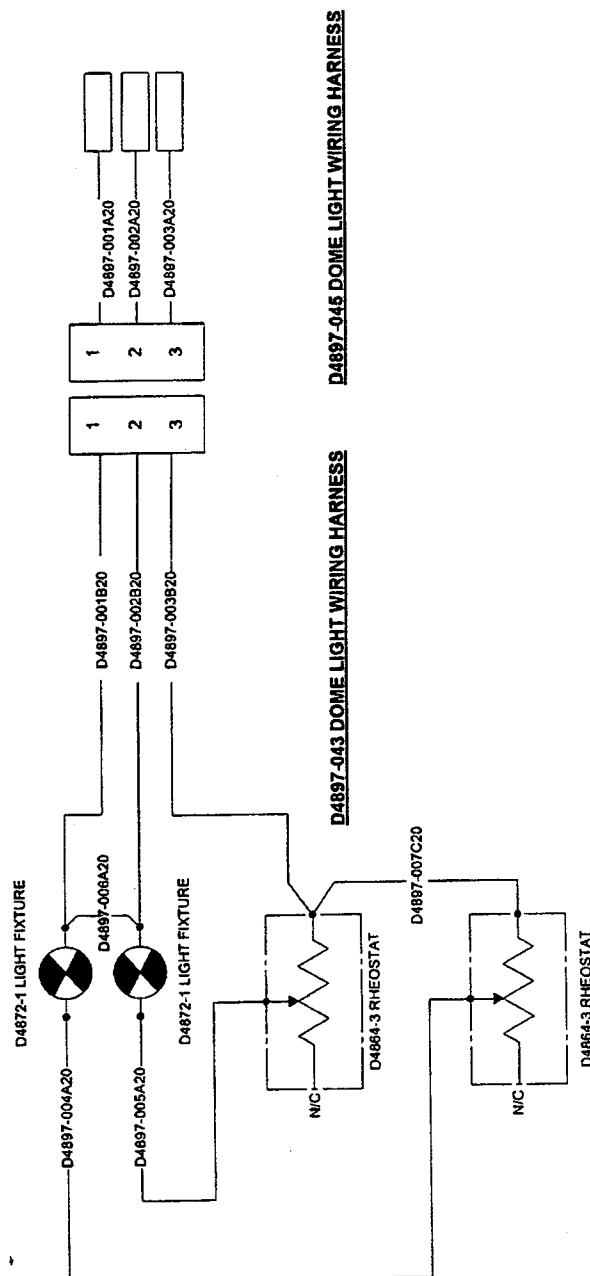


Figure 25-6 – Dome Light Wiring Diagram for D350-833-017 Installations  
(Sheet 2 of 2)

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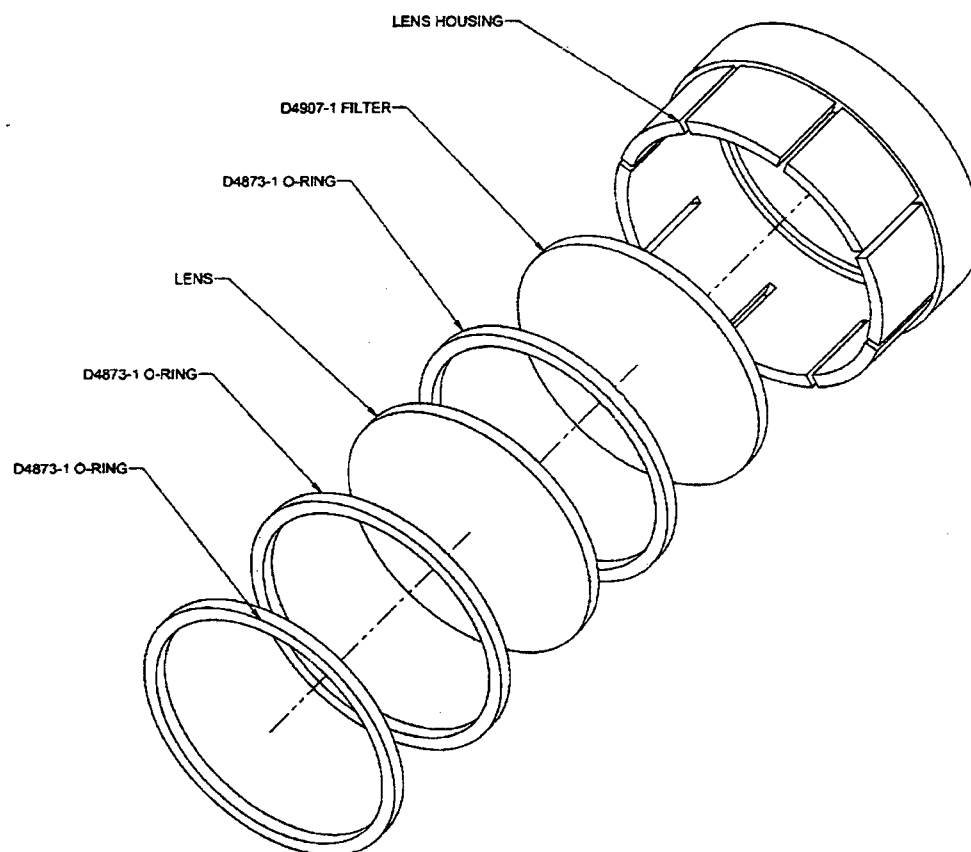
25-00-00

**25.3. D350-833-019 NVIS Filter Removal**

- 25.3.1. Refer to Figure 25-7 for assembly details.
- 25.3.2. Remove lens housing from dome light swivel socket by grasping outer ring and pulling firmly.
- 25.3.3. Remove lens, D4873-1 O-Rings and D4907-1 Filter.

**25.4. D350-833-019 NVIS Filter Reinstallation**

- 25.4.1. Refer to Figure 25-7 for assembly details.
- 25.4.2. Insert D4907-1 Filter.
- 25.4.3. Insert one D4873-1 O-Ring.
- 25.4.4. Insert lens with pattern side down.
- 25.4.5. Insert remaining 2X D4873-1 O-Rings one at a time. Press them flush against the lens and each other.
- 25.4.6. Reinsert the modified housing assembly firmly into the swivel socket.



**Figure 25-7 - NVIS Filter Installation**

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## 25.5. Parts List

Qty -011	Qty -013	Qty -015	Qty -017	Qty -019	Part Number	Description
X					D350-833-011	DOME LIGHT AIR VENT (P112-S)
	X				D350-833-013	DOME LIGHT AIR VENT (P112-L)
		X			D350-833-015	DOME LIGHT AIR VENT (P112-X)
			X		D350-833-017	DOME LIGHT AIR VENT (P112-XL)
				X	D350-833-019	NVIS FILTER KIT
		1			D4858-041	DOME LIGHT AIR VENT ASSY (REPLACES P/N G12983)
				6	D4873-1	O-RING
			1		D4887-041	DOME LIGHT AIR VENT ASSY (REPLACES P/N G12984)
	1				D4888-041	DOME LIGHT AIR VENT ASSY (REPLACES P/N GA129-12)
1					D4889-041	DOME LIGHT AIR VENT ASSY (REPLACES P/N GA129-11)
1	1	1	1		D4897-045	DOME LIGHT WIRING (REPLACES P/N G129-8-2 AND G12989-2)
				2	D4907-1	NVIS FILTER

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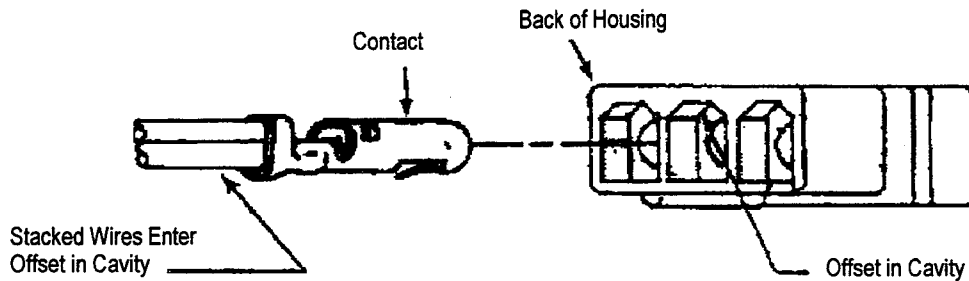


Figure 2

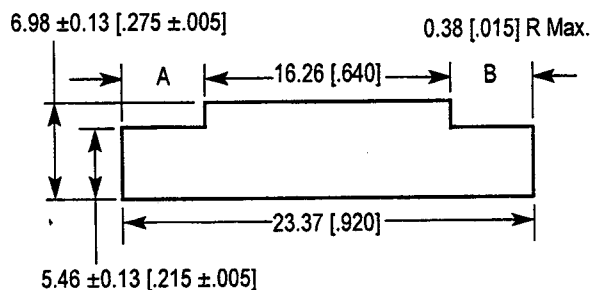
- For single-wire leads, push contact into housing as far as it will go. See Figure 1. Pull back lightly on wire to make sure contact is latched in place.
- For two-wire leads, first align contact with cavity as shown in Figure 2. Then push contact into housing and check to make sure it is properly inserted.
- For contacts crimped to small, flexible wire, use Insertion Tool 91002.

#### 4. HOUSING ENGAGEMENT AND DISENGAGEMENT

- To mate housings, align index ribs on plug and cap and push plug into cap until detents on cap snap into indents in plug. See Figure 1.
- To disengage housings, simply pull them apart.

#### 5. PANEL MOUNTING

- To mount plug to panel, first stamp cutout in panel using the dimensions in Figure 3.



**NOTE:** Recommended Panel Thickness Range is 0.64-1.65 [.025-.065]. Dimensions A and B to be equal to 0.13 [.005].

Figure 3



*Be sure to stamp cutout from side of panel thru which housing will enter. See Figure 4.*

- To install plug in panel, squeeze mounting legs together and push plug straight through panel (mating face first) until mounting leg engages panel. See Figure 4.

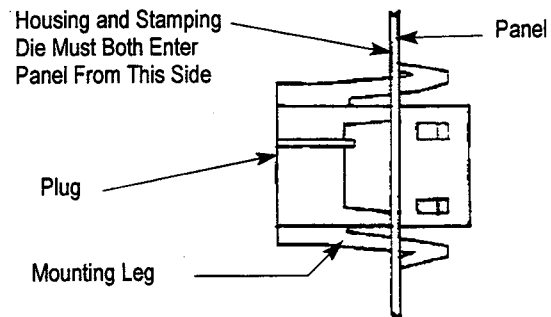


Figure 4

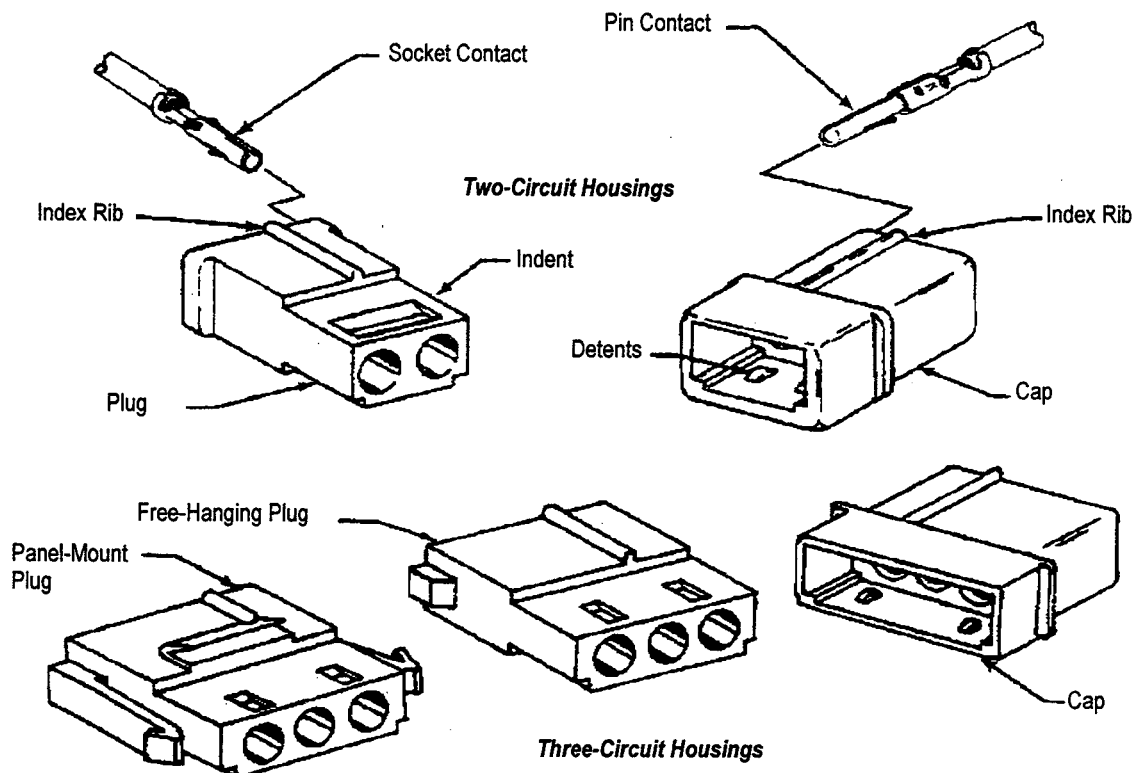
#### 6. CONTACT EXTRACTION

There are two types of extraction tools available. Use TE Tool 465644-1 to extract both pin and socket contacts when you can clearly see contacts as you look into front of housing and can easily reach rear of housing. If either view or access is restricted, use TE Tools 1-305183-1 (for pin contacts), and 1-305183-2 (for socket contacts).

#### 7. REVISION SUMMARY

- Updated document to corporate requirements
- New logo





NUMBER OF CIRCUITS	PLUG NUMBER	CAP NUMBER	CONNECTOR TYPE
2	480318-[]	480319-[]	Free-Hanging
2	480393-[]	—	Free-Hanging
3	480303-[]	480305-[]	Free-Hanging
3	480304-[]	480305-[]	Panel-Mount
3	480388-[]	480387-[]	Free-Hanging

Figure 1

## 1. INTRODUCTION

Each MATE-N-LOK Connector consists of two housings (a plug and a cap) and pin and socket contacts. The plug accepts socket contacts. See Figure 1. Read these instructions carefully before assembling the connector.

## 2. CONTACT CRIMPING

- To determine which contacts to use in these housings, refer to TE Connectivity Instruction Sheet 408-7300.

- Crimp contacts in strip form using the proper auto-machine applicator according to the instruction sheet shipped with the applicator.

- Crimp loose piece (lp) contacts with the proper hand tool.

## 3. CONTACT INSERTION



Use pins only in cap. Use sockets only in plug.